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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,813	10/05/2000	Steven A. Lapierre	052144-5001	8794
9629	7590	07/05/2005	EXAMINER CHARLES, DEBRA F	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			ART UNIT 3624	PAPER NUMBER

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/679,813

Applicant(s)

LAPIERRE, STEVEN A.

Examiner

Debra F. Charles

Art Unit

3624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on February 9, 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Response to Amendment***

1. Claims 1,4,5,6,7,8,10,11,12, and 19 have been amended.

***Response to Arguments***

2. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7,12-16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harpale(US 2002/0032579A1) and Togher et al.(US6014627A).

Re claims 1,12, 19: Harpale disclose a method for online trading assets via transactionally linked virtual markets (Abstract, para. 0011-0020) comprising the steps of:

defining attributes and behaviors of virtual markets(para. 0060-0089);  
placing individual buy and sell orders in the virtual markets(para. 0093);  
defining at least one unified cross-market trading strategy that includes at least a first order in a first virtual market and a second order in a second virtual market(para. 0094, i.e. cross-trading is trading across markets);  
automatically routing the first and second orders to their respective virtual markets(para. 0094); and  
automatically matching and executing both individual orders and orders generated by cross-market trading strategies for virtual markets(para 0020),  
wherein at least part of the method is performed on one or more computer systems(Abstract, para. 0011-0020).

Harpale disclose(s) the claimed invention except automatically calculating based on the unified cross-market trading strategy, a price and an amount for the first order in the first virtual market based on a price and an amount of one or more orders in the second virtual market;  
automatically calculating based on the unified cross-market trading strategy a price and an amount for the second order in the second virtual market based on a price and an amount of one or more orders in the first virtual market. However, in col. 1, lines 20-67, col. 7, lines 5-67, col. 10, lines 1-55, Fig. 1-7 thereof, Togher et al. disclose(s) a price arbitrage systems that functions across markets(currency trading is inherently cross market). It would be obvious to one of ordinary skill in the art to modify the invention of Harpale based on the teachings of Togher et al. The motivation to combine

these references is to take advantage of cross currency price arbitrage implemented across exchanges.

Re claim 2: Harpale disclose the attributes and behaviors of the virtual markets include asset types, payment dates, and payment factors(Figs. 4A-5C).

Re claim 3: Harpale disclose the attributes and behaviors of the virtual markets replicate those of conventional markets(Fig. 1, conventional markets have intermediaries).

Re claim 4: Harpale disclose the step of placing an individual buy and sell order includes specifying a total size of the order, a minimum allowable size of a partial execution of the order, a portion of the total size of the order that will be visible to others, and an indication of which of the virtual markets the order is for, and the price of the order(Figs. 4A-5C).

Re claims 5,6 and 7: Harpale disclose(s) the claimed invention except defining least one unified cross-market trading strategy further comprises the step of specifying a type of trading strategy; of cross-market trading strategy is selected from the group consisting of: arbitrage, basket, and hedge; and at least one unified cross-market trading strategy further

comprises the step of specifying the virtual markets referenced by the cross-market trading strategy.

However, in col. 1, lines 20-67, col. 6, lines 50-67, col. 7, lines 5-67, col. 8, lines 40-60, col. 10, lines 1-55, Fig. 1-7, thereof, Togher et al. disclose(s) various arbitrage, hedge and basket cross-marketing strategies and references various different markets(German Mark vs. US Dollar). It would be obvious to one of ordinary skill in the art to modify the invention of Harpale based on the teachings of Togher et al. The motivation to combine these references is to build in pre-established hedging and arbitrage trading strategies that capture the best price and spread.

5. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harpale and Togher et al. as applied to claim 1 above, and further in view of Grosh et al.(US 6195646B1).

Re claims 8 and 9: Harpale and Togher et al. disclose(s) the claimed invention except the step of defining least one unified cross-market trading strategy further comprises the step of defining formulae to calculate prices and amounts for each virtual markets referenced by the cross-market trading strategy based upon counterorders from other virtual markets.

Defining formulae to calculate further comprises the step of identifying a best counterorder for each initial buy or sell order. However, in col. 6, lines 5-67, thereof Grosh et al. disclose formulas and counterorders(counteroffers). It would be obvious to one of ordinary skill in the art to modify the invention of Harpale and Togher et al. based on the teachings of Grosh et al. The motivation to combine these references is to reflect the dynamic changes in price resulting from automated formula output.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harpale and Togher et al. as applied to claim 1 above, and further in view of Gonda et al.(US6662221B1).

Re claim 10: Harpale and Togher et al. disclose(s) the claimed invention except the step of automatically generating new orders. However, in claims 27 and 28, Gonda et al. discloses automatically generating new orders that fit within a customer's parameters. It would be obvious to one of ordinary skill in the art to modify the invention of Harpale and Togher et al. based on the teachings of Gonda et al. The motivation to combine these

references is to automatically generate a new order when market conditions meet the formula parameters.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harpale and Togher et al. as applied to claim 1 above, and further in view of Natarajan et al.(US6584502B1).

Re claim 11: Harpale and Togher et al. disclose the invention except automatically and continuously modifying orders as needed on behalf of the defined cross-market trading strategies in response to changes in the virtual markets referenced by the cross-market trading strategies.

However, in col. 2, lines 25-45, Natarajan et al. disclose dynamic feedback that alters and output based on a dynamic input and thereby solves the same problem of automatically and continuously modifying orders to meet changing virtual markets based on the cross-market trading formula strategies. It would be obvious to one of ordinary skill in the art to modify the invention of Harpale and Togher et al. based on the teachings of Natarajan et al. The motivation to combine these references is to automatically generate a new order when market conditions meet the formula parameters.



Re claims 13-16: Harpale disclose(s) the claimed invention except an adapter that enables external systems to link into the system so that users in the system may select from and share orders with external liquidity sources; an order validation mechanism; and a credit limit validation mechanism; a validation mechanism allows a host site to establish trading limits for the host site's accounts; validation mechanism validates each created new order against the trading limits, and once validated, sends the new order to at least one of the plurality of virtual markets; and credit limit validation mechanism allows host sites to establish mutual lines of credit for specified markets and use these lines of credit to act as guarantors when matching orders that originate from different host sites.

However, in in col. 1, lines 20-67, col. 2, lines 45-67, col. 6, lines 20-55, col. 7, lines 5-67, col. 10, lines 1-55, col. 11, lines 15-55, col. 12, lines 5-65, Fig. 1-7, Togher et al. discloses credit limits and validating account trades against credit limits. It would be obvious to one of ordinary skill in the art to modify the invention of Harpale based on the teachings of Togher et al. The motivation to combine these references is to automatically check the trade

against prescribed credit limits to prevent the customer from exceeding those limits.

8. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harpale and Togher et al. as applied to claim 13 above, and further in view of Brezak, Jr. et al.(US6401211B1).

Re claims 17 and 18: Harpale and Togher et al. disclose the invention except further comprising a plurality of access control servers to authenticate each user; the plurality of access control servers determine an authorized level of system access granted to each user before allowing each user to access the system. However, in the Abstract, col. 1, lines 65-50, Brezak, Jr. et al. disclose authenticating and controlling access to a network access control server. It would be obvious to one of ordinary skill in the art to modify the invention of Harpale and Togher et al. based on the teachings of Brezak, Jr. et al. The motivation to combine these references is to ensure only appropriate authorized access to the server.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Debra F. Charles whose telephone number is (571) 272 6791. The examiner can normally be reached on 9-5 Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent A. Millin can be reached on (571) 272 6747. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Debra F. Charles  
Examiner  
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